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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/604,519 06/27/00 RYAN

V 16-2

EXAMINER

MMC2/0328

DOCKET ADMINISTRATOR (RM 3C-512)
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GRAVBTU, D

ART UNIT

PAPER NUMBER

2814

DATE MAILED:

03/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/604,519

Applicant(s)

RYAN ET AL.

Examiner

David E Graybill

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2000.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8 and 10-14, drawn to a product, classified in class 257, subclass 1+.
- II. Claim 9, drawn to an apparatus, classified in class 29, subclass 25.01.
- III. Claim 15, drawn to a process, classified in class 438, subclass 612+.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the apparatus can be used for testing a product other than the product of claim 1.

Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2)

that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process as claimed can be used to make other and materially different product such as a product having the conductive region electrically coupled to devices.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for any one group is not required for any other group, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation between David A. Zarneke and Anthony Grillo on 9-27-2000 a provisional election was made without traverse to prosecute the invention of group I, claims 1-8 and 10-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9 and 15

are withdrawn from further consideration, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12 the language "at least two of the plurality of conductive runners a varying height relative to an upper surface" is grammatically unclear and confusing.

In claim 14 there is ambiguous and insufficient literal antecedent basis for the language "the conductive runners."

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 2, 4-8, 10-12 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikegami (6201308).

Reference labels are recited only for the first recitation of identical claim language.

At column 1, lines 18-26; and column 4, lines 10-49, Ikegami teaches the following:

1. An integrated circuit comprising: a substrate 20; a plurality of bond pads 27a, 27b formed above the substrate; and a first conductive region 23 formed at an outer region of the substrate and coupled to at least two of the plurality of bond pads.
2. The integrated circuit of claim 1 wherein the first conductive region surrounds the plurality of bond pads.
4. The integrated circuit of claim 1 further comprising:

second conductive regions "internal circuit" adapted to interconnect devices "transistors" formed in the integrated circuit, wherein the first conductive region is separate from the devices.

5. The integrated circuit of claim 1 wherein the first conductive region comprises at least two separate first conductive regions 23, 24.
6. The integrated circuit according to claim 5 wherein the at least two separate first conductive regions have a varying height relative to an upper surface of the substrate.
7. The integrated circuit according to claim 1 wherein the first conductive region is formed at the periphery of the integrated circuit.
8. The integrated circuit of claim 1 wherein the first conductive region comprises at least two separate conductive regions, each of the separate conductive regions coupled to at least two of the plurality of bond pads.
10. An integrated circuit comprising: a substrate; a plurality of bond pads; and a conductive runner 23 formed on the substrate and around the plurality of bond pads, the conductive runner electrically coupled to at least two of the plurality of bond pads.

11. The integrated circuit of claim 10 further comprising a plurality of the conductive runners 23, 24.

12. The integrated circuit according to claim 11 wherein at least two of the plurality of the conductive runners a varying height relative to an upper surface of the substrate.

14. The integrated circuit of claim 10 further comprising: devices formed on the integrated circuit; and circuit conductive runners "internal circuit" adapted to interconnect the devices to form a circuit; wherein the conductive runners are separate from the devices.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to

point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikegami as applied to claims 1, 2, 4-8, 10-12 and 14, or in the alternative, over the combination of Ikegami and Lee (5811874).

Ikegami does not appear to explicitly teach an integrated circuit wherein a first conductive region has a chamfered region. Notwithstanding, it would have been an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation and optimization to choose this particular shape because applicant has not disclosed that the shape is for a particular unobvious purpose, produces an unexpected result, or is otherwise critical, and it appears prima facie that the process would possess utility using another shape. Indeed, it has been held that limitations directed to shape are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); In re

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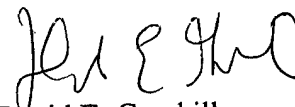
Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

In any case, in the alternative, at column 5, lines 8-13 and 50-53, Lee teaches an integrated circuit wherein a first conductive region 112 has a chamfered region. Moreover, it would have been obvious to combine the process of Lee with the process of Ikegami because it would reduce corner shear stress.

Any telephone inquiry of a general nature or relating to the status (MPEP 203.08) of this application or proceeding should be directed to the group receptionist whose telephone number is 703-308-1782.

Any telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (703) 308-2947. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.

The fax phone number for group 2800 is 703/305-3431.


David E. Graybill
Primary Examiner
Art Unit 2814

D.G.
22-Mar-01